AMENDMENTS TO THE SPECIFICATION:

Please amend the paragraph beginning at page 1, line 4 as follows:

This application claims priority to U.S. Provisional Patent Application No. 60/449,182, filed on February 21, 2003, [[Attorney Docket No. BFM-02560,]] and U.S. Provisional Patent Application No. 60/453,113, filed on March 7, 2003, [[Attorney Docket No. BFM-02561,]] and is a continuation-in-part of U.S. Patent Application No. 10/631,934, filed July 31, 2003, [[Attorney Docket No. BFM-01501,]] which claims priority to U.S. Provisional Patent Application No. 60/429,053, filed November 25, 2002, [[Attorney Docket No. BFM-01560,]] all of which are herein incorporated by reference in their entirety.

Please amend the paragraph beginning on page 73, line 4 as follows:

The functional form of $\hat{W}_g$ is assumed unknown. However, it can be estimated to within a few percent by the results obtained from the neural net calculation. Figure 12 shows the standard form of the feedforward NN using sigmoid node functions to solve a multiple input single output system (MIMO). Based on this architecture, the formula for $\hat{W}_g$ obtained from the neural net calculation may be expressed as:

~~$$\hat{W}_g(z) = \gamma\left[b2 + \sum_{i=1}^{P} W2_i * \gamma\left(b1_i + \sum_{j=1}^{m} W1_{i,j} * z_j\right)\right]$$~~ ~~WGT SENSITIVITY 2~~

$$\hat{W}_g(z) = \gamma\left[b2out + \sum_{i=1}^{P} W2_i * \gamma\left(b1_i + \sum_{j=1}^{m} W1_{i,j} * z_j\right)\right]$$ WGT SENSITIVITY 2

where z is the vector of inputs, p is the number of neurons in the hidden layer, m is the number of inputs, $W1_{i,j}$ is the weight of the j^{th} input to the i^{th} neuron in the hidden layer, $b1_i$ is the bias

added to the i^{th} neuron, $W2_i$ is the weight of the i^{th} neuron to the output neuron, [[b2]] b2out is the bias added to the output neuron, and γ is the tanh function.

Please amend the equation on page 73, line 22 as follows:

$$\gamma'\left[b2+\sum_{i=1}^{P}W2_i*\gamma\left(b1_i+\sum_{j=1}^{m}W1_{i,j}*z_j\right)\right]*\sum_{i=1}^{P}W2_i*W1_{i,k}*\gamma'\left(b1_i+\sum_{j=1}^{m}W1_{i,j}*z_j\right)$$

$$\gamma'\left[b2out+\sum_{i=1}^{P}W2_i*\gamma\left(b1_i+\sum_{j=1}^{m}W1_{i,j}*z_j\right)\right]*\sum_{i=1}^{P}W2_i*W1_{i,k}*\gamma'\left(b1_i+\sum_{j=1}^{m}W1_{i,j}*z_j\right)$$